



PTO/SB/08a/b (08-03)

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<b>Substitute for form 1449A/B/PTO</b>  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)				<b>Complete if Known</b>	
				Application Number	10/635818
				Filing Date	August 5, 2003
				First Named Inventor	Harrington, John J. <i>et al.</i>
				Art Unit	1645
				Examiner Name	Not Yet Assigned
Sheet	1	of	7	Attorney Docket Number	ATX-007CP4DV13CN

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
SM	A1	5,024,939	06-18-1991	Gorman	
	A2	5,272,071	12-21-1993	Chappel	
	A3	5,547,933	08-20-1996	Lin	
	A4	5,561,053	10-01-1996	Crowley	
	A5	5,578,461	11-26-1996	Sherwin <i>et al.</i>	
	A6	5,580,734	12-03-1996	Treco <i>et al.</i>	
	A7	5,618,698	04-08-1997	Lin	
	A8	5,621,080	04-15-1997	Lin	
	A9	5,629,159	05-13-1997	Anderson	
	A10	5,641,670	06-24-1997	Treco <i>et al.</i>	
	A11	5,677,170	10-14-1997	Devine <i>et al.</i>	
	A12	5,683,905	11-04-1997	Capon <i>et al.</i>	
	A13	5,688,679	11-18-1997	Powell	
	A14	5,707,830	01-13-1998	Calos	
	A15	5,728,551	03-17-1998	Devine <i>et al.</i>	
	A16	5,733,746	03-31-1998	Treco <i>et al.</i>	
	A17	5,733,761	03-31-1998	Treco <i>et al.</i>	
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	A19	5,789,215	08-04-1998	Berns <i>et al.</i>	
	A20	5,830,698	11-03-1998	Reff <i>et al.</i>	
	A21	5,843,772	12-01-1998	Devine <i>et al.</i>	
	A22	6,136,566	10-24-2000	Lexicon Graphics Inc.	

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Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				
SM	A23	WO 90/14092	11-29-1990	Cell Genesys, Inc.		
J	A24	WO 91/01140	02-07-1991	Cell Genesys, Inc.		
	A25	WO 91/06667	05-16-1991	Cell Genesys, Inc.		
	A26	WO 92/19255	11-12-1992	Cell Genesys, Inc.		
	A27	WO 92/20808	11-26-1992	Cell Genesys, Inc.		
	A28	WO 93/09222	05-13-1993	Transkaryotic Therapies, Inc.		
SM	A29	WO 94/12650	06-09-1994	Transkaryotic Therapies, Inc.		
	A30	AU 71893/94	06-30-1994	Odile Cohen-Haguenauer		

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	<del>B1</del>	<del>FR 2 707 091</del>	<del>01-06-1995</del>	<del>Odile Cohen-Haguenauer</del>		
SM	B2	WO 95/31560	11-23-1995	Transkaryotic Therapies, Inc.		
	B3	WO 96/04391	02-15-1996	Genentech, Inc.		
	B4	WO 96/29411	09-26-1996	Transkaryotic Therapies, Inc.		
	B5	EP 0 742 285 A1	11-13-1996	Rijksuniversiteit Leiden		
	B6	WO 98/12337	03-26-1998	Chiron Corporation		
	B7	WO 98/14614 A1	04-09-1998	Lexicon Genetics Incorporated		
	B8	WO 99/07389 A1	02-18-1999	Lexicon Genetics Incorporated		
	B9	WO 99/15650 A1	04-01-1999	Athersys, Inc.		
SM	B10	WO 99/50426	10-07-1999	Lexicon Genetics Incorporated		

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SM	B11	Auch, D., and Reth, M., "Exon trap cloning: using PCR to rapidly detect and clone exons from genomic DNA fragments," <i>Nucl. Acids Res.</i> 25:6743-6744 (1990).				
	B12	Avoustin, P., <i>et al.</i> , "Non-homologous recombination within the Major Histocompatibility Complex creates a transcribed hybrid sequence," <i>Mammalian Genome</i> 5(12): 771-776 (1994).				
	B13	Barker, C.S., <i>et al.</i> , "Activation of the Prolactin Receptor Gene by Promoter Insertion in a Moloney Murine Leukemia Virus- Induced Rat Thymoma," <i>J. Virol.</i> 66(11):6763-6768 (1992).				
	B14	Black, A.C., <i>et al.</i> , "HTLV-II Rex Binding and Activity Requires an Intact Splice Donor Site and a Specific RNA Secondary Structure," <i>AIDS Res. &amp; Human Retroviruses</i> 5:870 (1992).				
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4m	C1	Butturini, A., <i>et al.</i> , "Oncogenes in Human Leukemias," <i>Acta Haematologica</i> 78(Suppl. 1):2-10 (1987).		
	C2	Butturini, A., and Gale, R.P., "Oncogenes and Human Leukemias," <i>Intl. J. Cell Cloning</i> 6(1):2-24 (1988).		
	C3	Chakraborty, A.K., <i>et al.</i> , "Transforming function of proto-ras genes depends on heterologous AR 4 promoters and is enhanced by specific point mutations," <i>Proc. Natl. Acad. Sci. USA</i> 55:2217-2221 (1991).		
	C4	Chang, W., <i>et al.</i> , "Enrichment of Insertional Mutants Following Retrovirus Gene Trap Selection," <i>Virology</i> 193:737-747 (1993).		
	C5	Chow, W.-Y., and Berg, D.E., "Tn5tac1, a derivative of transposon Tn5 that generates conditional mutations," <i>Proc. Natl. Acad. Sci. USA</i> 55:6468-6472 (1988).		
	C6	Church, D.M., <i>et al.</i> , "Isolation of genes from complex sources of mammalian genomic DNA using exon amplification," <i>Nature Genetics</i> 6:98-105 (1994).		
	C7	Crabb, B.S., and Cowman, A.F., "Characterization of promoters and stable transfection by homologous and nonhomologous recombination in <i>Plasmodium falciparum</i> ," <i>Proc. Natl. Acad. Sci. USA</i> 93:7289-7294 (July 1996).		
	C8	Datson, N.A., <i>et al.</i> , "Specific isolation of 3'-terminal exons of human genes by exon trapping," <i>Nucl. Acids Res.</i> 22(20):4148-4153 (1994).		
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	C10	De Benedetti, A., and Rhoads, R.E., "A novel BK virus-based episomal vector for expression of foreign genes in mammalian cells," <i>Nucl. Acids Res.</i> 19:1925-1931 (1991).		
	C11	Dickson, C., <i>et al.</i> , "Tumorigenesis by Mouse Mammary Tumor Virus: Proviral Activation of a Cellular Gene in the Common Integration Region <i>int-2</i> ," <i>Cell</i> 37:529-536 (1984).		
	C12	Dostatni, N., <i>et al.</i> , "Use of Retroviral Vectors for Mapping of Splice Sites in Cottontail Rabbit - Papillomavirus," <i>J. Gen. Virol.</i> 69:3093-3100 (1988).		
	C13	Duesberg, P.H., <i>et al.</i> , "Cancer Genes by Non-Homologous Recombination," In: <i>Boundaries between 7 Promotion and Progression during Carcinogenesis</i> , Sudilovsky, O., <i>et al.</i> , eds., Plenum Press, New York, NY, pp. 197-211 (1991).		
	C14	Duyk, G.M., <i>et al.</i> , "Exon trapping: A genetic screen to identify candidate transcribed sequences - in cloned mammalian genomic DNA," <i>Proc. Natl. Acad. Sci. USA</i> 57:8995-8999 (1990).		
	C15	Frankel, W., <i>et al.</i> , "Retroviral insertional mutagenesis of a target allele in a heterozygous murine cell line," <i>Proc. Natl. Acad. Sci. USA</i> 82:6600-6604 (1985).		
4m	C16	Fujisawa, J.-I., <i>et al.</i> , "Functional activation of the long terminal repeat of human T-cell leukemia virus type I by a <i>trans</i> -acting factor," <i>Proc. Natl. Acad. Sci. USA</i> 82:2277-2281 (1985).		

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Examiner Signature	<i>W. Chen</i>	Date Considered	1-23-08
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SM	D1	Fung, Y.-K.T., <i>et al.</i> , "Activation of the Cellular Oncogene <i>c-erbB</i> by LTR Insertion: Molecular Basis for Induction of Erythroblastosis by Avian Leukosis Virus," <i>Cell</i> 33:357-368 (1983).	
	D2	Goff, S.P., "Gene Isolation by Retroviral Tagging," <i>Meth. Enzymology</i> 152:469-481 (1987).	
	D3	Hay, Bruce A., <i>et al.</i> , "P Element Insertion-Dependent Gene Activation In The Drosophila Eye," <i>Proc. Natl. Acad. Sci. USA</i> , 94:5195-5200 (May 1997)	
	D4	Hayward, W.S., <i>et al.</i> , "Activation of a cellular <i>onc</i> gene by promoter insertion in ALV-induced lymphoid leukosis," <i>Nature</i> 290:475-480 (1981).	
	D5	Jackson, I.J., "A reappraisal of non-consensus mRNA splice sites," <i>Nucl. Acids Res.</i> 19(14):3795-3798 (1991).	
	D6	Joshi, S., "A Putative Approach for Cloning 'Silent' Genes Using Retroviral Vectors," <i>Med. Hypoth.</i> 36:242-245 (1991).	
	D7	Joyner, A.L., "Gene Targeting and Gene Trap Screens Using Embryonic Stem Cells: New Approaches to Mammalian Development," <i>BioEssays</i> 13:649-656 (1991).	
	D8	Junejo, F., <i>et al.</i> , "Sequence analysis of the herpes simplex virus type 1 strain 1704, 1705 and 1706 with respect to their origin and effect on the latency-associated transcript sequence," <i>J. Gen. Virol.</i> 72:2311-2315 (1991).	
	D9	Kaufman. <i>Short Protocols in Molecular Biology</i> , ed. Ausubel <i>et al.</i> John Wiley & Sons, Inc. 1995, pages 16-58-16-60.	
	D10	King, W., <i>et al.</i> , "Insertion Mutagenesis of Embryonal Carcinoma Cells by Retroviruses," <i>Science</i> 228:554-558 (1985).	
	D11	Kreissig, S., <i>et al.</i> , "Expression of peptides encoded by exons in cloned mammalian DNA," <i>Nucl. Acids Res.</i> 24:4358-4359 (November 1996).	
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	D13	Liang, Y., <i>et al.</i> , "Effects of Alternate RNA Splicing on Glucokinase Isoform Activities in the Pancreatic Islet, Liver, and Pituitary," <i>J. Biol. Chem.</i> 266(11):6999-7007 (1991).	
	D14	Lih, C.-J., <i>et al.</i> , "Rapid identification and isolation of transcriptionally active regions from mouse genomes," <i>Gene</i> 164:289-294 (1995).	
	D15	Liu, Z., <i>et al.</i> , "The E6 Gene of Human Papillomavirus Type 16 Is Sufficient for Transformation of Baby Rat Kidney Cells in Cotransfection with Activated Ha-ras," <i>Virology</i> 201:388-396 (1994).	
	D16	Mölders, H., <i>et al.</i> , "Integration of transfected LTR sequences into the <i>c-ras</i> proto-oncogene: activation by promoter insertion," <i>EMBO J.</i> 4(3):693-698 (1985).	
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4m	E1	Müller, R., and Müller, D., "Co-transfection of normal NIH/3T3 DNA and retroviral LTR sequences: a novel strategy for the detection of potential <i>c-onc</i> genes," <i>EMBO J.</i> 3(5):1121-1127 (1984).		
	E2	Muth, K., <i>et al.</i> "Disruption of Genes Regulated During Hematopoietic Differentiation of Mouse Embryonic Stem Cells," <i>Develop. Dynamics</i> 212:277-283 (June 1998).		
	E3	Neel, B.C., <i>et al.</i> , "Molecular Analysis of the <i>c-myc</i> Locus in Normal Tissue and in Avian Leukosis Virus-Induced Lymphomas," <i>J. Virol.</i> 44(1): 158-166 (1982).		
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	E6	Niwa, H., <i>et al.</i> , "An Efficient Gene-Trap Method Using Poly A Trap Vectors and Characterization of Gene-Trap Events," <i>J. Biochem.</i> 113:343-349 (1993).		
	E7	Nottenburg, C., and Varnus, H.E., "Features of the Chicken <i>c-myc</i> Gene That Influence the 15 Structure of <i>c-myc</i> RNA in Normal Cells and Bursal Lymphomas," <i>Mol. Cell. Biol.</i> 6(8): 2800-2806 (1986).		
	E8	Nouvel, P., "The mammalian genome shaping activity of reverse transcriptase," <i>Genetica</i> 93:191-201 (1994).		
	E9	Nusse, R., "The activation of cellular oncogenes by retroviral insertion," <i>Trends in Genetics</i> 2:244-247 (1986).		
	E10	Nusse, R., and Berns, A., "Cellular Oncogene Activation by Insertion of Retroviral DNA: Genes Identified by Provirus Tagging," In: <u>Cellular Oncogenes Activation</u> , Klein, G., ed., Marcel Dekker, Inc., New York, NY, pp. 95-119 (1988).		
	E11	Payne, G.S., <i>et al.</i> , "Multiple arrangements of viral DNA and an activated host oncogene in bursal lymphomas," <i>Nature</i> 295:209-215 (1982).		
	E12	Peters, G., <i>et al.</i> , "Tumorigenesis by Mouse Mammary Tumor Virus: Evidence for a Common Region for Provirus Integration in Mammary Tumors," <i>Cell</i> 33:369-377 (1983).		
	E13	Petitclerc, D. <i>et al.</i> , "The effect of various introns and transcription terminators on the efficiency of expression vectors in various cultured cell lines and in the mammary gland of transgenic mice," <i>J. Biotechnol.</i> 40:169-178 (1995).		
4m	E14	Reinhart, T.A., <i>et al.</i> , "RNA Splice Site Utilization by Simian Immunodeficiency Viruses Derived from Sooty Mangabey Monkeys," <i>Virology</i> 224:338-344 (October 1, 1996).		

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	F3	Segal, D., <i>et al.</i> , "Genetic Transformation of <i>Drosophila</i> Cells in Culture by P Element-Mediated Transposition," <i>Somatic Cell and Mol. Genetics</i> 22 (2):159-165 (March 1996).	
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	F7	Simpson, K., <i>et al.</i> , "Stable Episomal Maintenance of Yeast Artificial Chromosomes in Human Cells," <i>Mol. Cell. Biol.</i> 16:5117-5126 (September 1996).	
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	F10	Sun, T.-Q., <i>et al.</i> , "Human artificial episomal chromosomes for cloning large DNA fragments in human cells," <i>Nature Genetics</i> 8:33-41 (1994).	
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			Application Number	10/635818	
			Filing Date	August 5, 2003	
			First Named Inventor	Harrington, John J. <i>et al.</i>	
			Art Unit	1645	
			Examiner Name	Not Yet Assigned	
Sheet	7	of	7	Attorney Docket Number	ATX-007CP4DV13CN

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4M	G1	Voss, A.K., <i>et al.</i> , "Efficiency Assessment of the Gene Trap Approach," <i>Develop. Dynamics</i> 212:171-180 (June 1998).			
	G2	Westphal, E.M., <i>et al.</i> , "A System for Shuttling 200-kb BAC/PAC Clones into Human Cells: Stable 23 Extrachromosomal Persistence and Long-Term Ectopic Gene Activation," <i>Human Gene Ther.</i> 9:1863-1873 (September 1998).			
	G3	Xiong, J.-W., <i>et al.</i> , "Large-Scale Screening for Developmental Genes in Embryonic Stem Cells and Embryoid Bodies Using Retroviral Entrapment Vectors," <i>Develop. Dynamics</i> 212:131-197 (June 1998).			
	G4	Yoshida, M., <i>et al.</i> , "A New Strategy of Gene Trapping in ES Cells Using 3'RACE," <i>Transgenic Research</i> 4:277-287 (1995).			
	G5	Zhou, H., and Duesberg, P.H., "A retroviral promoter is sufficient to convert proto- <i>src</i> to a transforming gene that is distinct from the <i>src</i> gene of Rous sarcoma virus," <i>Proc. Natl. Acad. Sci. USA</i> 87:9128-9132 (1990).			
	G6	Dialog File 351, Derwent WPI English language abstract for FR 2 707 091.			
	G7	Drug Discovery News, "Lexicon Genetics, Inc.," <i>Genetic Engin. News</i> 19:35 (March 1999).			
4M	G8	PCT International Search Report as provided by the International Searching Authority.			

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2

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Application Number

**10/635818**

**Filing Date**

**August 5, 2003**

**First Named Inventor**

Harrington, J.J.

### Art Unit

~~1645~~ 1632

**Examiner Name**

~~Not Yet Assigned~~ Shin-Lin Chen

Attorney Docket Number

**ATX-007CP4DV13CN**

## U.S. PATENT DOCUMENTS

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				Filing Date	August 5, 2003
				First Named Inventor	Harrington, J.J.
				Art Unit	1645 1632
				Examiner Name	Not Yet Assigned <i>Shirley Chen</i>
Sheet	2	of	2	Attorney Docket Number	ATX-007CP4DV13CN

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		Number-Kind Code <sup>2</sup> (if known)			
<i>SC</i>	C1	09/276820	03-26-1999	Harrington <i>et al.</i>	
	C2	09/484317	01-18-2000	Harrington <i>et al.</i>	
	C3	09/484331	01-18-2000	Harrington <i>et al.</i>	
	C4	09/484895	01-18-2000	Harrington <i>et al.</i>	
	C5	09/760897	01-17-2001	Harrington <i>et al.</i>	
<i>SC</i>	C6	10/331329	12-30-2002	Harrington <i>et al.</i>	

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
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Application Number	10/635818
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Filing Date	August 5, 2003
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First Named Inventor	Harrington, J.J.
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